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normativity**

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# *Normativity as a Kind of Conformity: Towards a naturalistic account of epistemic normativity.*



BASIL MÜLLER

## *Abstract*

There seem to be things we ought not to believe and others we are permitted to believe. Belief is treated as a normative phenomenon both in everyday and academic discourse. At the same time, normativity can be seen as a threat to a naturalistic understanding of the world. Whilst naturalistic claims are of descriptive nature, norms are prescriptive. It is usually held that they cannot be reduced to statements of fact. This problem is also pertinent to the normativity of belief. How is such a phenomenon to be understood within a naturalist framework?

Sullivan-Bissett provides a naturalistic account of epistemic normativity in which she explains epistemic normativity in terms of biological functions of belief-producing mechanisms. Importantly, her account is error-theoretic: She argues that we mistake doxastic strategies, which are at best normative in a hypothetical sense, to be categorical epistemic norms.

In continuation of Sullivan-Bissett's account, I draw attention to one of the belief-producing mechanisms which is responsible for bringing about these mistaken beliefs. I claim that normative conformity – a social-learning mechanisms – brings about our beliefs in the existence and categorical validity of epistemic norms. Keeping with the evolutionary perspective employed by Sullivan-Bissett, I answer questions about the function and phylogeny of our mistaken beliefs in epistemic normativity by means of normative conformity and in line with Sullivan-Bissett's account.

**Keywords:** *epistemic normativity, normativism, conformity, proper function, naturalism*

## **§1** *Introduction*

There seem to be things we ought not to believe and others we are permitted to believe. We seem to quite often criticise and praise people for the correct or incorrect beliefs they hold. Moreover, we often feel that

they do something wrong when they form beliefs in an unreliable way. Both in everyday and academic discourse, belief is treated as a normative phenomenon in this sense. Indeed, over the last couple of years, epistemic normativity has established itself as a much-considered field of philosophical inquiry. Most often, the norm which is said to govern belief is one of truth, formulated in terms of permissibility [36]: One may believe  $p$  if and only if it is true that  $p$ . This is associated with belief's standard of correctness, according to which a belief that  $p$  is correct iff it is true that  $p$ . There are also other epistemic norms pertaining to *rationality* – a belief is correct iff it is rational; to *knowledge* – a belief that  $p$  is correct iff it aims at knowledge; or to *evidence* – a belief is correct iff it rests upon sufficient evidence [5]. At the same time, normativity in general can be seen as a threat to a naturalistic understanding of the world [7]. Whilst naturalistic claims are of descriptive nature, norms are prescriptive. It is usually held that they cannot be reduced to statements of fact. This problem is also pertinent to the normativity of belief. How is such a phenomenon to be understood within a naturalist framework?

Sullivan-Bissett [22] provides a naturalistic account of epistemic normativity. She argues that our belief-producing mechanisms serve two biological/proper functions. Next to producing true beliefs [PF1], they also function to produce beliefs which are self-organising [PF2]. Such beliefs organise the individual in the sense that they, for example, maintain self-esteem and avoid psychological damage. Importantly, this happens irrespective of the truthfulness of those beliefs. So, beliefs produced by PF2 can often be false.

According to Sullivan-Bissett, epistemic normativity is supposed to consist of two claims:

I) Beliefs have truth as their standard of correctness.

II) There are categorical epistemic norms.

The aforementioned epistemic norms are categorical insofar as an agent ought to follow them irrespective of her goals and desires. So, for example, one ought to follow the epistemic norm pertaining to evidence – a belief is correct iff it rests upon sufficient evidence – even if one does not gain anything from following this norm in a practical sense.

Sullivan-Bissett takes PF1 to explain beliefs standard of correctness. PF2 is supposed to explain our beliefs in the categorical validity of epistemic norms or what I will call the [normative pull]: The fact that we believe that or feel as though there are categorical epistemic norms we ought to follow. Sullivan-Bissett argues for an error-theoretic account

according to which by believing in the categorical validity of epistemic norms we make an adaptive mistake. PF2 functions to bring about the disposition to have these mistaken beliefs – what I will call the [normative pull disposition]. The supposed categorical epistemic norms are really just doxastic strategies to meet the first proper function of belief-producing mechanisms, which is to produce true beliefs. Our mistaking these strategies to be categorical epistemic norms brings us to follow them more earnestly. Sullivan-Bissett concludes that neither belief’s standard of correctness – understood in relation to PF1 – nor the supposedly categorical epistemic norms – understood as doxastic strategies to fulfil PF1 – give rise to the kind of normativity usually envisaged by normativist philosophers of belief.

The goal of this paper is to shine a light on the mechanisms involved in bringing about the normative pull disposition. In particular, I would like to draw attention to a social-learning mechanism – namely normative conformity – which, as I shall argue, is at least *one* of the mechanisms involved in serving PF2. Normative conformity is implemented by an expectation of others to conform, by an emotional urge to conform and to punish deviant individuals. I will argue that this mechanism leads to us conforming to the aforementioned doxastic strategies, gives rise to the normative pull disposition and thus to our mistaken beliefs in epistemic normativity. It is in this sense that I see the contribution of this paper to be a development of Sullivan-Bissett’s account.<sup>1</sup>

To structure the forthcoming discussion, it will pay dividends to be clear about what the concept of norm contains. Following Glock [7] and von Wright [34], the term ‘norm’ can signify either the average or usual level of attainment or the standard used to assess or judge something, usually conduct. In the debate about epistemic normativity, philosophers are interested in ‘norms’ of this second, prescriptive kind. These norms are – as explicated above – usually taken to contain deontic concepts. They are about what one ought (not) to believe. Norms of this kind have a world to mind direction of fit and give agents at least a pro tanto reason for following them. In Glock’s terminology, they are context-specific in the sense that are often confined to certain subjects (say, belief) and they are occasion-neutral in the sense that they apply to an unlimited variety of cases (say, all beliefs). Importantly, there is a difference between a norm and its linguistic expression: The same norm can be spelled out in several different sentences or need not be expressed at all – a norm can also govern implicitly. Closing this non-exhaustive description of norms, normative facts – the existence of which Sullivan-

Bissett denies for the case of belief – are features of reality which validate norms.

I assume that in dealing with the normative pull disposition, we are fundamentally concerned with a kind of doxastic *behaviour*. This means that we are dealing with the formation, regulation, and maintenance of beliefs in light of these strategies and supposed norms. Both the doxastic strategies and our mistaking them to be categorical epistemic norms facilitate the formation and regulation of beliefs in the most truth-conducive way possible. Tinbergen’s [24] four questions which must be answered to fully explain a behaviour should thus help to structure the rest of this paper. Accordingly, at the very least the following questions need answering to fully grasp the normative pull disposition:

Two questions relating to ultimate explanations:

- 1) What is the adaptive value of the normative pull disposition?
- 2) What is the phylogeny of the normative pull disposition?

And two questions relating to proximate explanations:

- 3) What is the causal role of the normative pull disposition?
- 4) What is the ontogeny of the normative pull disposition?

For the remainder of this paper, I shall maintain that all of these questions are to be addressed in relation to conformity-mechanisms. I will say comparatively little about questions 3) and 4): It is not my goal to give a complete causal story with regards to the normative pull disposition or normative conformity’s involvement in bringing it about. Question 4) will remain unanswered. The causal and ontogenetic questions are however not the only ones in need of answering. In keeping with the perspective employed by Sullivan-Bissett, this paper takes the evolutionary route and seeks to answer the ultimate questions as outlined above. So, I will mainly address questions 1) and 2). By addressing question 1) I hope to both get a clearer understanding of the function conformity-mechanisms serve than is currently on offer in the relevant empirical literature and to show that this function can be understood in relation to PF2. This should go some way to understand the adaptive value of epistemic normativity. By addressing question 2) I hope to make it plausible that conformity-mechanisms are in actuality one of the mechanisms which fulfil PF2.

Before answering questions 1) and 2) I will in §2 first establish the notion of biological function which both Sullivan-Bissett and I subscribe

to. In §3 I will give a more detailed overview of Sullivan-Bissett's account and in §4 I will quickly introduce conformity-mechanisms as their understood in the relevant empirical literature. In §5 and §6 I will answer questions 1) and 2) respectively.

## §2 *Biological functions*

Since both Sullivan-Bissett and I use the notion of a biological function, I would first like to introduce it before discussing her account.

I am advocating an etiological account of functions, according to which – roughly – the function of a trait is what that trait (or traits of the same type) was selected for in the past ([13], [16]). So, for example, the function of the heart is to pump blood. This is so because, in past instances where a creature's heart was indeed pumping blood, this was adaptive for the creature in question.

Importantly, this notion of functions comes with Normal explanations/conditions: The conditions that must be mentioned in a minimal explanation of how the function has successfully been performed in the past. Furthermore, a function can be ascribed on the basis of observed behaviour and without knowledge of the mechanism(s) which bring about the behaviour. So, the ascription of a function to a trait does not entail the ascription of a particular mechanism which fulfils this function. ([14], [19]).<sup>2</sup>

With a clearer picture of functions in mind, I would now like to turn to Sullivan-Bissett's account of epistemic normativity.

## §3 *Sullivan-Bissett's account*

Sullivan-Bissett takes epistemic normativity to consist in the conjunction of two claims:

- I) Beliefs have truth as their standard of correctness.
- II) There are sui-generis categorical epistemic norms.

With regards to I), ever since Williams [37] it is very much orthodox to associate beliefs with truth and falsehood as a dimension of assessment. It is in this sense that the belief that p is correct iff it is true that p and the belief that p is incorrect iff it is wrong that p.

With regards to II), the most discussed epistemic norm also pertains to beliefs standard of correctness. There are, however, also other kinds

of norms pertaining to *rationality* – a belief is correct iff it is rational; to *knowledge* – a belief that *p* is correct iff it aims at knowledge; or to *evidence* – a belief is correct iff it rests upon sufficient evidence [5]. In more recent research the epistemic norms are often formulated in terms of permissibility: One may (with regards to the norm of truth) believe *p* iff it is true that *p* [36]. These norms are thought to be *sui-generis* because they only govern beliefs. Evaluating the correctness of, for example, imaginings in terms of truth, evidence or knowledge is generally inappropriate. Epistemic norms are thought to be *categorical* insofar as agents ought to follow them irrespective of their goals and desires. The practical benefits which might arise from following those norms are irrelevant to our obligations towards them. These kinds of norms stand in stark contrast to hypothetical norms which an agent only “ought” to follow insofar as they help to fulfil her goals. So, for example, it is thought that one ought to follow the epistemic norm pertaining to evidence – a belief is correct iff it rests upon sufficient evidence – even if one does not gain anything from following this norm in a practical sense.

Sullivan-Bissett seeks to naturalise both claims by means of biological functions. To be more precise, she argues that our belief-producing mechanisms serve two biological/proper functions. Next to producing true beliefs [PF1], they also function to produce beliefs which are self-organising [PF2].

Concerning PF1, it has often been argued that the claim, according to which our beliefs aim at truth [37] is to be understood in the sense that belief-producing mechanisms serve the proper function of producing true beliefs ([15], [18]) and that having true beliefs is adaptive or advantageous for the individual possessing them ([4, p. 49]; [5]). So, because it is advantageous for individuals to have true beliefs, natural selection has ‘installed’ mechanisms which function to produce such beliefs.

The beliefs produced by mechanisms responsible for PF2 facilitate self-organisation in the sense that they, for example, maintain self-esteem and avoid psychological damage. Sullivan-Bissett argues that the beliefs produced by these mechanisms are not just malfunctioning instances of mechanisms responsible for PF1. Though the beliefs they produce are false, they are still adaptive and seemingly produced in a Normal matter. The claim is that even if these mechanisms produce false beliefs, they still do what they were selected for. Self-deceptive beliefs can serve as an example: A failed footballer himself, a father is extremely proud of his son’s extraordinary footballing abilities and is very much invested in his potential career as a footballing professional. However, the beliefs in

his son's abilities are established and maintained in the face of a great amount of evidence to the contrary. According to PF2, these beliefs serve the self-organisation of the father. Would he believe the truth, it would bring such enormous emotional disturbance to him that he would be unable to function properly.<sup>3</sup>

Sullivan-Bissett claims that **I**) is to be explained in terms of PF1: The only sense of correctness attached to belief is in relation to the first proper function of belief-producing mechanisms. It is because they have it as their proper function to produce true beliefs that such beliefs are correct and false beliefs are incorrect. Belief's standard of correctness is thus a purely biological matter in the sense that it can be fully understood in relation to the relevant mechanisms' selection history. However, such a biological kind of correctness as it pertains to the belief-producing mechanisms does not give rise to normativity in any interesting sense. Sullivan-Bissett follows Papineau ([17], [18]) in arguing that biological functions can be reduced to claims about selection histories. The fact that a trait was selected to do something does not entail that the effect is in any sense valuable or that its performance has to be prescribed. So, the sense of obligation or any kind of ought-element usually associated with epistemic normativity is not to be found in beliefs standard of correctness.

Sullivan-Bissett denies the existence of the categorical epistemic norms which are invoked by **II**). Much rather, she argues for there being doxastic strategies which are mistaken to be categorical epistemic norms. These strategies are in place to regulate the acquisition and maintenance of beliefs in a truth-conducive way and thus help to facilitate the meeting of belief's standard of correctness and the fulfilment of PF1. Sullivan-Bissett defers to Leiter's examples of such strategies – they can be understood to contain something like the following: “treat normal perceptual experience as *prima facie* veridical, honor logical inferences, and employ the inductive method in empirical enquiry” [10, p. 75]. Importantly, such strategies are said to not contain any *categorically* normative elements. It is my understanding of these strategies that the individual following them need not be aware of their contents or even of their existence. Though they can certainly be made explicit, they can also merely be expressed in behaviour. Sullivan-Bissett maintains that in mistaking these strategies to be *sui-generis* categorical epistemic norms we make an *adaptive* mistake. This mistake is adaptive because having these beliefs about epistemic normativity leads to a more robust formation of true beliefs. Would we take these doxastic strategies to be



just that – strategies without any categorical normative elements – we would not have such a strong sense of obligation towards forming beliefs in line with them. The resulting beliefs would be much less accurate. The idea seems to be that because a subject believes that she really ought to believe  $p$  iff she has sufficient evidence in favour of  $p$ , she will more reliably have true beliefs (and thus more reliably fulfil PF1).

So, a central part of Sullivan-Bissett’s account is a metaethical import of an error-theoretic kind. I would like to characterise the error we commit by introducing the [normative pull]: The fact that we believe that or feel as though there are categorical epistemic norms we ought to follow. It is in this sense that the error we commit lies in our beliefs in the *existence* and *categorical validity* of the supposed epistemic norms. The disposition to commit this error – I shall call it the [normative pull disposition] – is explained in evolutionary terms. Because the beliefs subsumed under the normative pull are false but adaptive, Sullivan-Bissett holds that the disposition to form such beliefs can be understood as the outcome of mechanisms fulfilling PF2 – of mechanisms which function to produce beliefs which are self-organising. The idea here seems to be that because the normative pull leads to PF1 being more reliably produced, it can be said that it organises the individual in an adaptive way.

I would now like to turn to answering questions 1) and 2). Before doing so, I shall first attempt to make the reader more familiar with the notion of conformity at hand.

As a sort of rough overview of what follows, the big picture I would like to argue for is that epistemic normativity is fundamentally about doxastic behaviour. Doxastic behaviour, in turn, can be influenced by biological factors – e.g. we usually form beliefs based on what we perceive, just because this is how we are set up to do things. But, importantly, it is also influenced by social and cultural factors – e.g. we form beliefs based on the inductive method because we have been *taught* to do so. Hence, I take it that both biological and social factors are at play in bringing about epistemic normativity. Following this, I maintain that epistemic normativity is to be understood in relation to a biological mechanism responsible for enabling social learning and cultural phenomena. This mechanism is normative conformity. I claim that normative conformity makes individuals conform to doxastic strategies. I furthermore hold that the normative pull disposition and the ensuing doxastic behaviour is caused either directly or indirectly by normative conformity. This is to say that it is because our emotional urges to conform and punish de-

viant individuals and our expectations of others to conform to norms are so strongly pronounced that we mistake doxastic strategies to be more than what they really are. On an intuitive level, it very much makes sense to take these doxastic strategies to be categorical epistemic norms when faced with such an emotional load: The supposed epistemic norms being categorical would legitimise our wanting to conform to them and punish individuals who do not follow them. It also seems justified to expect other individuals to conform to these norms.

#### §4 *What is conformity?*

Conformity is a social-learning mechanism which is investigated in a plethora of different empirical fields which on the one hand, have a different understanding of conformity itself and on the other hand have different areas of analysis and explanatory interest with regards to the phenomenon ([2], [30]). Since I import the notion of conformity from empirical literature in order to apply it to a philosophical problem, I shall now briefly present an understanding of conformity which is shared within the aforementioned fields of enquiry. These remarks on conformity-mechanisms should serve to make the later considerations on their function and phylogeny more understandable.

“Conformity” describes the tendency of individuals to disproportionately forego personal information about a behaviour in favour of the majority’s variant of the behaviour [30]. Furthermore, a motivational distinction for adopting the majorities variant has been established ([4], [3]): In the case of informational conformity, individuals are motivated to conform to the majority’s variant because of the search for accurate information *about the world*. For normative conformity, individuals are motivated by a concern for *social information and interactions*. Examples for the first kind of behaviour can be found in the realm of non-human animals: Migrating male vervet monkeys, for example, conform to the feeding habits of their new groups – even if these habits contradict their previous behaviour ([30] & [35]). It is assumed they do so because the feeding behaviour of their new group is better suited to the local circumstances. The second kind of behaviour is not found in non-human animals [1]. The following can serve as an example: A teenage boy who takes up some behaviour of his peer-group – say choice of fashionable clothes – not because of his actual agreement with the behaviour in question but rather because he would like to fit in. As previously mentioned, *normative* conformity is implemented by an emotional urge

to conform to norms, the expectations of others to do so and the urge to punish non-conforming individuals. So, importantly, the two forms of conformity are distinguished by the presence of punishment and the involvement of strong emotions in *normative* conformity. Conformity in general is adaptive in information-poor circumstances where individual learning is costly because it allows for the aggregation of information over the behaviour of many individuals. This is often described as letting individuals tap into the wisdom of the crowd [6].

Of course, much more could be said about conformity- and related social-learning mechanisms. Nevertheless, what has been said so far should make it possible to meaningfully answer questions 1) and 2).

## §5 *Question 1) What is the adaptive value of the normative pull disposition?*

Question 1) asks about the adaptive value of a given trait. The adaptive value of a trait can be specified in function-ascriptions. The ascription of functions specifies what it is that a trait does which makes the trait adaptive. For example, the adaptive value of the heart is expressed in saying that its function is to pump blood.

I have claimed that conformity-mechanisms are at least in part responsible for bringing about the normative pull disposition and thus fulfil PF2. In §4 I have presented an understanding of conformity-mechanisms shared within the relevant empirical literature. Part of it referred to the adaptive value of these mechanisms. If these conformity-mechanisms really bring about the normative pull disposition, it should be possible to answer Question 1) based on this empirical understanding in much the same way as Sullivan-Bissett does. To argue for this, I will first give room to some clarificatory remarks about the function of conformity-mechanisms as discussed in the empirical literature. After, I will seek to establish that both Sullivan-Bissett and conformity-mechanisms answer Question 1) along the same lines.

I noted previously (§4) that conformity-mechanisms are adaptive because they let individuals tap into the wisdom of the crowd - in the sense that they allow for the aggregation of information over many individuals. In this context, Van Leuween et al [30] argue that larger groups are better suited to find adaptive answers to problems posed by their environment because of the possibility of a synergy of the individuals' cognitive capacities to discover and reason about the relevant contingencies. So, the general idea seems to be that if there is little information available and

individual learning is costly, then it is often better to conform to the behavioural – i.e. non-prescriptive – norm set by the majority. This is so because they are more likely to contain some adaptive variants of the relevant behaviours.

There seems to be a conceptual point to be made about conformity with regards to its proper function:

1. Since conformity is a relation (one conforms to something), it seems plausible to say that the adaptive value of conformity is always relative to the adaptive value of what is being conformed to. If one were to conform to non-adaptive behaviour, it seems clear that conforming to that behaviour as such would in fact not be adaptive. In this sense, however, conformity itself only comes with a derived adaptive value from the thing individuals conform to – and therefore without a proper adaptive value itself.

The notion of conformity just introduced seems to be a probabilistic one – in the sense that conforming to the behaviour of the majority heightens the chances of the individual to emulate useful behaviour. I take it my point holds regardless: The degree to which conforming to the majority's behaviour is adaptive for the individual depends on the degree of adaptiveness of the behaviour the individual conforms to.

2. The idea that conformity is adaptive because it “lets individuals tap into the wisdom of the crowd“ in the light of 1. thus seems to convey the point that conformity allows individuals to emulate adaptive behaviour. Amongst others, adaptive behaviour is behaviour which fulfils a biological function.

So, considering these remarks, it can be said that the function of conformity-mechanisms is to make individuals emulate adaptive behaviour. As discussed in §2, the notion of function at play is an etiological one. This means that the function of conformity-mechanisms is to make individuals emulate adaptive behaviour because when individuals were made to emulate *adaptive* behaviour in the past by these mechanisms, this gave them an evolutionary advantage.

These remarks have however been of rather general nature – there are lots of different kinds of adaptive behaviour individuals could conform to. How is this supposed to work out for the epistemic case – i.e. in relation to epistemic normativity and the normative pull disposition?

Remember, the picture I would like to advocate is the following: normative conformity makes us conform to doxastic strategies and makes

it so that we mistake these strategies to be categorical epistemic norms – it brings about the normative pull disposition. This disposition is adaptive because PF1 is more reliably fulfilled this way. The above points 1. and 2. require the behaviour to which individuals conform to possess some adaptive value. It seems clear that what makes conforming worthwhile in the epistemic case is the adaptive value of PF1 being more reliably fulfilled. So, the function of normative conformity for the epistemic case is to make individuals conform to behaviour which leads to PF1 being more reliably fulfilled. To be more precise, within this picture two sorts of behaviour hold adaptive value for the same reason: 1<sup>st</sup> conforming to doxastic strategies as such is adaptive because PF1 is more reliably fulfilled this way and 2<sup>nd</sup> mistaking these strategies to be categorical epistemic norms is adaptive because it leads to PF1 being *even more* reliably fulfilled. This will become important later on. What remains to be shown is that Question 1) would be answered in the same way by Sullivan-Bissett. Remember, she also describes PF2 rather generally – as a function of mechanisms which produce false beliefs, and which are organising the individual in some (adaptive) way. In the case of epistemic normativity,<sup>4</sup> she argues that the normative pull disposition should be understood to be brought about by mechanisms fulfilling PF2. This is so because the beliefs subsumed under the normative pull are false but adaptive. They are adaptive because PF1 is more reliably fulfilled in this way. The individual is thus organised in such a way as to more reliably fulfil PF1.

It seems clear that in the epistemic case and for both the rather empirical notion of the function of conformity-mechanisms and for PF2 the ultimate adaptive value is the more reliable production of PF1. In this sense it also seems to follow that both conformity-mechanisms and PF2 express the same function as far as epistemic normativity is concerned: The function of the (conformity-) mechanisms at play in fulfilling PF2 is to more reliably produce PF1.

## §6 *Question 2) What is the phylogeny of the normative pull disposition?*

I claim that normative conformity is at least partially responsible for the normative pull disposition. It follows that my account should be able to answer question 2) in terms of normative conformity. I will try to do so by showing how the evolutionary conditions which in the empirical literature are said to give rise to normative conformity are also plausibly

being met in many cases of doxastic behaviour.

I feel that it is prudent to focus on this not only because normative conformity's involvement in bringing about the normative pull disposition is just a contingent possibility. The distinction between informational and normative conformity also gives us ample reason to be interested in this. As introduced in §4, a motivational distinction between informational and normative conformity is drawn in the empirical literature. For informational conformity, individuals conform to a behaviour because of the search for accurate information about the world. For normative conformity, individuals conform to a behaviour because of a concern for social information and interactions. Only the latter is implemented by emotional urges to conform and punish deviant individuals and expectations of others to conform. I have argued that it is *normative* conformity which is involved in bringing about the normative pull disposition. However, since Sullivan-Bissett argues that the normative pull disposition ultimately serves to more reliably fulfil PF1 and since PF1 just is to produce true beliefs, it seems more intuitive to assume that informational conformity is involved in the normative pull disposition. This is so because just like PF1, informational conformity is also concerned with gaining accurate information about the world. So, where does the social aspect contained in normative conformity come in? The aims of this paragraph are thus, on the one hand, to show that based on the phylogeny of normative conformity, it is plausibly also at play in bringing about the normative pull disposition and on the other hand to highlight the social aspect contained in the normative pull disposition.

In general, I take it to be plausible that individuals conformed to doxastic strategies for purely informational reasons. As mentioned in §5 conforming to doxastic strategies as such is likely adaptive because implementing these strategies will lead to PF1 being more reliably fulfilled. However, in explaining the normative pull disposition and the ensuing behaviour, normative conformity comes into the picture. I will try to argue that it is evolutionary meaningful for normative conformity-mechanisms to be implemented in the production of the normative pull disposition because of the importance of accurate doxastic states for interdependent social groups. In other words, it is because the truth or falsity of individuals' beliefs has great consequences for their respective social groups, that the normative pull disposition and the ensuing epistemic behaviour is elicited by normative conformity. I will show this by 1<sup>st</sup> introducing the evolutionary origins and environmental conditions which gave rise to normative conformity and 2<sup>nd</sup> arguing that these

conditions if reasonably understood, are also present in many cases of doxastic behaviour.

As far as evolutionary origins are concerned, VanSchaik and Burkart et al ([1], [33]) argue that normativity first came about within the evolution of another normative phenomenon, namely morality. Morality is said to have emerged in hunter-gatherer societies some two million years ago. It functions to allow for their interdependent lifestyle which is based on direct and indirect reciprocity.<sup>5</sup> Within this set-up, the reputation of an individual is an important factor. This is so because cooperation will only occur with individuals who achieve a certain threshold of reputation. VanSchaik and Burkart argue that morality's function is mainly implemented by strong emotions which lead to prosocial behavioural preferences and thereby allow for coordinated and synchronised actions – i.e. cooperation.

Since there are however advantages to breaking norms, especially in high pay-off and low-cost scenarios, not behaving according to norms could be adaptive in many scenarios. In humans, a tendency to do so is in part facilitated by the selfish dispositions of our psychology. Importantly, 'norm' is still used in the descriptive sense of an average level of attainment of conduct – for the case of "moral" behaviour this could, for example, mean prosocial and collaborative types of behaviour. VanSchaik and Burkart argue that *normative conformity* comes into the picture when two conditions are met:

- a) Interdependence within a group – in the sense that individuals need other individuals to behave in a certain way in order to survive and mate.
- b) Conflict of interests of some sort – there is an incentive to cheat or free-ride the efforts of others.

The already mentioned emotions and expectations subsumed under 'normative conformity' are seen to be responsible for the adherence to the norm. It is only with normative conformity in play that 'norms' are not just descriptive, but prescriptive. The authors assume that normative conformity arose through the combination of informational conformity – which they argue has been adaptive long before hominids roamed the earth and is proven to exist in other species – with the relevant prosocial emotions and the concern for one's reputation.

Kappeler et al [9] mention a third condition: They argue that the expectation of others to conform is linked to predictability. The predictability of (inter-)actions is an important factor for establishing one's

reputation as a viable and reliable partner in dyadic cooperation. Since individuals who conform to the majority's norm are quite predictable, they thus gain an advantage. This might be a positive factor in bringing about normative conformity. Thus, the third condition reads:

c) Predictability is an important factor of interactions.

As discussed in §4, conformity-mechanisms are adaptive in informationally poor circumstances, where individual learning is costly. This would be a fourth condition:

d) Individual learning is costly.

So, importantly, normative conformity is adaptive when four conditions are met, namely those of interdependence, of a conflict of interest, of the relevance of predictability and when individual learning is costly. The general point seems to be that normative conformity ensures that norms important for a social group are adhered to even in light of competing interests.

For the remainder of this paper, I would like to argue that doxastic behaviour can meaningfully be said to meet the evolutionary conditions in the context of which normative conformity is at play. This should help to showcase the *social* importance of beliefs' accuracy and to convince the reader that normative conformity is indeed at play in bringing about the normative pull disposition.

Before doing so I would like to note that I take VanSchaik and Burkart's conception of condition b) to be too strong. They argue that an incentive to cheat must be present for individuals to deviate. However, natural selection does not care for which reasons individuals deviate from (adaptive) behavioural norms. It only cares that they do so. In this sense, it seems that what really needs to be present as a second condition is the frequency of the deviation from adaptive behaviour. If individuals deviate too frequently, then normative conformity is needed. I take it to be true that this frequency will generally increase if there is an incentive to deviate. However, there could also be other reasons for this to happen. It could, for example, just be very difficult to find the appropriate behavioural variant or individuals could just have the disposition to favour another, slightly less or even non-adaptive, behavioural variant.

Furthermore, it also seems plausible that the two conditions – interdependence and the conflict of interest – are linked in the sense that if there happens to be a higher degree of interdependence, a smaller de-



gree of conflict of interest will be sufficient to make normative conformity worthwhile.

To properly assess normative conformity's involvement in bringing about the normative pull disposition, I would like to first draw attention to the broader evolutionary context from which epistemic normativity originated. Remember, VanSchaik, Burkart and Kappeler argued that normative conformity was a factor in the evolution of morality which came about in hunter-gatherer societies two million years ago. As far as epistemic normativity and the normative pull disposition goes, I have mentioned that it is plausible that individuals first conformed to doxastic strategies for purely informational reasons. This later changed to normative conformity because of the social importance of beliefs. I do not feel comfortable to pinpoint when such a change could have occurred. Instead, what I shall try to do is show that within an evolutionary context envisaged by a well-established area of research – namely cumulative cultural evolution – the four conditions can be met meaningfully. I will thus claim that the normative pull disposition could have been established in an evolutionary context as envisaged in cumulative cultural evolution, without making any concrete claims as to the time/place this took place.

So, what is cumulative cultural evolution?<sup>6</sup> Roughly, it describes the process through which social learning builds a body of *culturally* transmitted information in a population. Importantly, the information is passed on not by genetics, but by culture and social learning. This happens in such a way that locally adaptive aspects aggregate over time – culture is *cumulative* in this sense. Adaptive practices, techniques, and bodies of knowledge are built which no individual could figure out by themselves in their lifetime. Interestingly, culture so understood can be found in a variety of species – such as birds, bees, fish and many primates. However, humans are by far the most effective social learners and display the most complex cultural behaviour. Human culture is by far the most cumulative, it is even sometimes argued that *only* human culture is *truly* cumulative (though see [20] & [12] for discussion). Conformity is understood to be one of the key social-learning mechanisms responsible for bringing about culture. The general point I would like to make is that in becoming more important and saturating various parts of our lives, culture and the processes and mechanisms underlying it make it so that normative conformity also plays a part in the doxastic and epistemic realm. In other words, because the way we form and regulate our beliefs is *in part* an important cultural technique which has to be learned and refined socially, normative conformity is involved.<sup>7</sup>

Most animals capable of forming beliefs will do so based on basic innate mechanisms. But when it is important to do so accurately and in complex circumstances, social-learning is involved. Leiter's doxastic strategies can again serve as an example: Whilst most animals will treat perceptual experience as veridical just because their perceptual systems are set-up to do just that, employing the inductive method in empirical enquiry is in many contexts something which has to be learned and refined socially. It is because it is so important for a social group that its members have accurate beliefs, that normative conformity conforms individuals to these doxastic strategies and leads individuals to mistake them for categorical epistemic norms. The evolutionary context I assume is thus marked to a relevant degree by the processes described by cumulative cultural evolution. This is to say that there is an accumulation of cultural techniques, practices, and knowledge, including ways of forming beliefs, which could not have been figured out by an individual in their lifetime and which are learned socially.

I would now like to argue that in the evolutionary context just established, many cases of doxastic behaviour can be said to meet the conditions for *normative* conformity. Summarising what has been established up to this point, normative conformity is relevant 1<sup>st</sup> in information-poor circumstances, when individual learning is costly, 2<sup>nd</sup> when there is interdependence, 3<sup>rd</sup> when a conflict of interest and, 4<sup>th</sup>, when the relevance of predictability is given.

It seems quite clear that with regards to the first point, individual learning is quasi by definition of cumulative cultural evolution very costly. This in the sense that individual learning is just not one of the mechanisms involved. One of the slogans of the field is that cultural practices, techniques, and bodies of knowledge *cannot* be learned by one individual in their lifetime. They have to be learned *socially* and not *individually*.

For 2<sup>nd</sup>, it seems fair to say that if in the previously described hunter-gatherer societies there was a high degree of interdependence with regards to behaviour, such that there had to be prescriptive norms facilitating the coexistence of individuals, then there was also a need for individuals to have accurate beliefs about the world and, in turn, for those beliefs to be formed reliably. Individuals cannot participate in various forms of collective action (e.g. collective hunting) if they do not have accurate beliefs about the core elements of the relevant kinds of action. Furthermore, it is not just that individuals cannot participate in various kinds of behaviour, it is also the case that when they are participating in

cooperative behaviour, other individuals rely on them to have accurate beliefs for the behaviour to be successful. This reliance is amplified with regards to single individuals not being able to learn techniques, practices, and bodies of knowledge in their lifetime. This will invariably lead to a division of labour and specialisation with regards to these practices and knowledge. This in the sense that for certain endeavours, a social group will rely on the specialised beliefs of one individual to be accurate for the task to work out as planned. Knowledge of different roles within collective hunting can serve as a very low-lying example thereof, whilst a more demanding example, which is also more steeped in philosophical history, could be the dependence on goldsmiths or chemists to say whether something was really gold or not. The dependence on these individuals to have accurate beliefs then heightens the need for those beliefs to be formed reliably.

As far as the fourth point about predictability is concerned: Within the philosophy of action, it is often assumed that beliefs – in composition with desires – play an important role for the performance of an action. It thus seems quite plausible that having false beliefs leads to an unsuccessful performance of the desired action and thus to unpredictable behaviour. Since predictability of behaviour was already a relevant condition in bringing about normative conformity in the evolution of morality and since false beliefs will lead to unpredictable behaviour, it seems that individuals forming their beliefs reliably would also already have been an important factor when normative conformity was first established.

I take conditions 1, 2 and 4 to be fairly intuitive. The third condition, regarding conflict of interests, is less straight-forward. Remember, VanSchaik and Burkart argued for a strong wording of this condition:

[CoI<sub>Strong</sub>]: There is an incentive to cheat or free-ride on the efforts of others.

Whereas I argued for a weaker form:

[CoI<sub>Weak</sub>]: Individuals deviate from the adaptive behavioural norm (too) frequently.

As far as CoI<sub>Strong</sub> goes, it seems intuitive to think that an incentive to somehow “cheat” the doxastic strategies or at least to not employ them is not present. Individuals in general just seem better off when they have true beliefs. However, underlying such an intuition is a picture of beliefs in which they solely aim at truth. Within Sullivan-Bissett’s account,

beliefs also fulfil another function: Namely to organise the individual. This can also mean that an individual – by believing falsely – is protected from an unwelcome truth. In such cases, biologically speaking, the individual is better off by believing falsely. “Pleasant” beliefs in this sense can serve as an incentive to not employ doxastic strategies. This is also reflected within the ethics of belief debate: It is often discussed (for example, see [21]) that humans in their belief-formation can be influenced by epistemic and non-epistemic reasons. Self-deception can serve as an example: in cases of (regular) self-deceptive beliefs, there is an incentive to not follow prudent doxastic behaviour, i.e. to protect oneself from unwelcome truths. Here, beliefs are (most likely indirectly) formed for non-epistemic, rather than epistemic reasons. In this sense it seems there is an analogue to cheating moral norms in the doxastic realm: one disregards prudent doxastic behaviour in order to deceive and protect oneself. It is in this sense that one finds oneself in a conflict of interest between one’s epistemic and non-epistemic reasons. I do concede that these points are somewhat speculative. Luckily, I already argued against CoI<sub>Strong</sub> on independent grounds.

CoI<sub>Weak</sub> can be accommodated more easily. The above points can certainly also be a factor within this weaker conception of a conflict of interest: Because individuals are dispositioned to form pleasant beliefs in some circumstances, they deviate from an adaptive behavioural norm too frequently. Furthermore, it is often simply difficult to form true beliefs. Although there is no intention or desire to not form beliefs in an ideal manner, if circumstances are complex mistakes are made. I take it to be intuitive that within cumulative cultural evolution and in recent history of mankind, there is ample room for many mistakes in the formation of beliefs to be made. If this happens too often and has ramifications for the group the individual is part of, then normative conformity is needed. This second point I think is strengthened by my claim that if there is a higher degree of interdependence, a lower degree of conflict of interest is sufficient for normative conformity to be evolutionary sensible. It seems plausible that past and present groups of people do contain a higher degree of interdependence than these hunter-gatherer societies did.<sup>8</sup> In this sense, merely getting things wrong often enough is sufficient for normative conformity.

The above remarks make it clear why normative conformity could be of use for a social *group*: Since in the epistemic case normative conformity leads to individuals having true beliefs more reliably, this will lead to individuals being able to depend on the beliefs of others. However, in

normative conformity *individuals* (and not social groups as a whole) are motivated to conform because of a concern for social information and interaction. How can this be understood in relation to the above points?

VanSchaik and Burkart argue that because hunter-gatherer societies were so interdependent, cooperative behaviour was of central importance to many of their endeavours. Cooperation, in turn, is in part regulated by reputation – only individuals with an adequate reputation will be seen as viable partners for cooperation. This is also where predictability becomes relevant: Predictable individuals are more likely to enjoy a good reputation and thus have ample cooperation-opportunities. The idea seems to be that individuals are motivated to conform to norms because of their interest in having a good reputation and thus being able to cooperate with others. These are clearly concerns for *social* information and interactions.

If it is true that within the evolutionary context described above there is both considerable interdependence and substantial relevance with regards to how beliefs are formed, then it seems quite plausible that part of an individual's reputation is of epistemic nature. This means that the reputation an individual has is in part influenced by how reliable its beliefs are formed. Again, individuals who are thought of as not having accurate beliefs to an adequate degree will not be viable partners for cooperation. I argue that it is *in part* individuals' interest in maintaining a good epistemic reputation and thus gain cooperation-opportunities (and other benefits which come from being part of a social group) which motivates them to conform to the doxastic strategies. These concerns for reputation and cooperation are clearly in relation to *social* information and interaction. It also seems quite clear that in these circumstances individuals do not *just* conform because of their interest in gaining accurate information: Put simply, even individuals who do not care about the immediate pay-offs they receive from following the doxastic strategies – i.e. more accurate information about the world – most likely still care about the social pay-offs they receive from following them – i.e. cooperation-opportunities and being part of a social group. Put differently, individuals do not just conform to doxastic strategies because otherwise, they would not acquire true beliefs, they also conform because otherwise their reputation as someone who believes truly would suffer.

Summarising, I find it plausible that individuals first conformed to doxastic strategies for purely informational reasons. Importantly, they did not take doxastic strategies to contain categorical normative elements. However, over the course of time and in such a culturally satu-

rated social group as envisaged above, where there is ample opportunity for errors in the formation of beliefs, vast interdependence with regards to beliefs' accuracy and where individuals conform to doxastic strategies because of a concern for their reputation that the normative pull disposition came about. This was so because the beliefs produced by means of informational conformity were too inaccurate. This could have been because of various factors: Individuals could have competing interests to form pleasant, rather than true beliefs, employing these strategies to in complex settings could have been difficult or individuals could just have been disposed to favour other ways of forming beliefs. Either way, too many grave errors in belief-formation were committed for which both individuals and their respective social groups paid the price. Thus, at a certain point – or within a gradual change – normative conformity and with it the normative pull disposition could establish themselves, because PF1 was fulfilled *even more* reliably by mistaking doxastic strategies to be categorical doxastic norms, by punishing others as though they violated such norms and by expecting and feeling that oneself and others ought to conform to these supposed norms.

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### *Notes*

- 1 It is important to note that these conformity-mechanisms could also be understood within a different kind of account. Sullivan-Bissett herself claims that an expressivist-account of epistemic normativity could also be given. Such an account would minimally claim that our epistemic discourse does not give voice to explicit beliefs of subjects, but rather a non-cognitive mental state. It seems at least intuitively plausible, that conformity mechanisms could play a role within such an account. Developing Sullivan-Bissett's account should nonetheless be a worthwhile endeavour.
- 2 It seems worth mentioning that Sullivan-Bissett actually argues for an account of biological functions which is slightly different, but still inspired from the more traditional accounts given by Millikan and Neander [see 23]. The differences between these accounts are however not relevant for this paper.

- 3 Sullivan-Bissett also notes that accounts of the evolutionary advantages of self-deception have been given by Trivers ([25], [26], [27]) and Van Leeuwen ([31], [32]).
- 4 It seems plausible to say that for other cases where PF2 is said to be involved – for example, self-deception – the adaptive value would be spelled out differently.
- 5 Direct reciprocity takes place when one individual helps another individual in exchange for a future return. Indirect reciprocity takes place when the favour is returned by a 3<sup>rd</sup>-party individual [11].
- 6 I will follow Mesoudi & Jensen [11] and Henrich & McElreath [8] in their exposition of the topic.
- 7 With regards to the ethics of belief debate, I do not take this to necessitate ascribing any unusual amount of control over the ways we form beliefs to subjects.
- 8 Kappeler et al [9] make a related point comparing the complexity of present societies with those of the past.

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